

# Notice of Allowability

Application No.

09/754,490

Examiner

Blanche Wong

Applicant(s)

REFAI ET AL.

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment after Final dated August 20, 2007.
2. ☒ The allowed claim(s) is/are 2,3,5-13,15-18,20-23,25-35,37-39,41-44 (renumbered 1-5,10,11,6-9,12-14,18,15,16,19,17,20-37 respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other _____   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert M. Meeks (Reg. No. 40,723) on August 24, 2007.

The application has been amended as follows:

1. (Canceled)
2. (Currently Amended) ~~A method according to Claim 1~~ A method of communicating with a wireless terminal, the method comprising:

communicating between the wireless terminal and a first node according to a first radio configuration of a first set of radio configurations supported by the first node;

identifying a second radio configuration available for a second node that supports a second set of radio configurations that is different from the first set of radio configurations; and  
simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration using common channel coding including a common spreading code, wherein a first one of the first and second sets of radio configurations is constrained to radio configurations that are compliant with a

wireless communications standard, and wherein a second one of the first and second sets of radio configurations comprises radio configurations compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard.

3. (Currently Amended) A method according to Claim 1, wherein a the first one of the first and second sets of radio configurations is constrained to IS-95 compliant radio configurations, and wherein a the second one of the first and second sets of radio configurations includes IS-2000 compliant radio configurations that are non-compliant with IS-95.

4. (Canceled)

5. (Currently Amended) A method according to Claim 1, wherein simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the second radio configuration further comprises:

receiving first and second signals transmitted from respective ones of the first and second nodes at the wireless terminal; and

processing the first and second signals according to a common process.

6. (Original) A method according to Claim 5:

wherein receiving first and second signals transmitted from respective ones of the first and second nodes at the wireless terminal comprises receiving a composite signal including the first and second signals; and

wherein processing the first and second signals according to a common process comprises processing the composite signal according to a RAKE process.

7. (Currently Amended) A method according to Claim 1, wherein the first and second radio configurations comprise code division multiple access (CDMA) radio configurations.

8. (Currently Amended) ~~A method according to Claim 1~~ A method of communicating with a wireless terminal, the method comprising:

communicating between the wireless terminal and a first node according to a first radio configuration of a first set of radio configurations supported by the first node;

identifying a second radio configuration available for a second node that supports a second set of radio configurations that is different from the first set of radio configurations; and

simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration using a common channel coding including a common spreading code, wherein the first node supports a first set of radio configurations and wherein the second node supports a the second set of radio configurations that includes only a subset of the first set of radio configurations.

9. (Currently Amended) ~~A method according to Claim 1~~ A method of communicating with a wireless terminal, the method comprising:

communicating between the wireless terminal and a first node according to a first radio configuration of a first set of radio configurations supported by the first node;

identifying a second radio configuration available for a second node that supports a second set of radio configurations that is different from the first set of radio configurations; and  
simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration using a common channel coding including a common spreading code, ~~wherein the first node supports a first set of radio configurations, wherein the second node supports a second set of radio configurations, and wherein the first set of radio configurations includes only a subset of the second set of radio configurations.~~

10. (Currently Amended) A method according to Claim 1 2, wherein identifying a second radio configuration available for a second node is proceeded by identifying the second node as a best candidate node according to a predetermined criterion.

11. (Currently Amended) A method according to Claim 1 2, wherein simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration is preceded by requesting communication according to the second radio configuration from the wireless terminal.

12. (Currently Amended) A method according to Claim 1 2, wherein simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration is preceded by commanding the wireless terminal to communicate according to the second radio configuration.

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13. (Currently Amended) A method according to Claim 1, wherein simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration is followed by terminating communications between the wireless terminal and the first node while continuing communications between the wireless terminal and the second node.

14. (Canceled)

15. (Currently Amended) ~~A method according to Claim 14~~ A method of performing handoff of a wireless terminal from a first base station supporting a first set of radio configurations to a second base station supporting a second set of radio configurations that is different than the first set of radio configurations, the method comprising:

determining whether a common radio configuration having a common channel coding including a common spreading code is available for the first and second base stations; and

handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations, wherein a first one of the first and second sets of radio configurations is constrained to radio configurations that are compliant with a wireless communications standard, and wherein a second one of the first and second sets of radio configurations comprises radio configurations that are compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard.

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16. (Currently Amended) A method according to Claim 14 15, wherein a the first one of the first and second sets of radio configurations is constrained to IS-95 compliant radio configurations, and wherein a the second one of the first and second sets of radio configurations includes IS-2000 compliant radio configurations that are non-compliant with IS-95.

17. (Currently Amended) A method according to Claim 14 15, wherein handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations comprises performing a soft handoff of the wireless terminal using the common radio configuration.

18. (Currently Amended) ~~A method according to Claim 17~~ A method of performing handoff of a wireless terminal from a first base station supporting a first set of radio configurations to a second base station supporting a second set of radio configurations that is different than the first set of radio configurations, the method comprising:

determining whether a common radio configuration having a common channel coding including a common spreading code is available for the first and second base stations; and

handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations,

wherein handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations comprises performing a soft handoff of the wireless terminal using

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the common radio configuration, and wherein performing a soft handoff of the wireless terminal using the common radio configuration comprises[[:]] changing the radio configuration used for communications between the first base station and the wireless terminal to the common radio configuration[[:]] and then communicating between the second base station and the wireless terminal according to the common radio configuration.

19. (Canceled)

20. (Currently Amended) A method according to Claim 14 17, wherein performing a soft handoff of the wireless terminal using the common radio configuration further comprises:

receiving first and second signals transmitted by respective ones of the first and second base stations at the wireless terminal; and

processing the first and second received signals according to a common process.

21. (Original) A method according to Claim 20:

wherein receiving first and second signals transmitted by respective ones of the first and second base stations at the wireless terminal comprises receiving a composite signal including the first and second signals; and

wherein processing the first and second received signals according to a common process comprises processing the composite signal according to a RAKE process.

22. (Currently Amended) ~~A method according to Claim 14~~ A method of performing handoff of a wireless terminal from a first base station supporting a first set of radio



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configurations to a second base station supporting a second set of radio configurations that is different than the first set of radio configurations, the method comprising:

determining whether a common radio configuration having a common channel coding including a common spreading code is available for the first and second base stations; and

handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations, wherein handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations comprises performing a hard handoff from the first base station to the second base station if a common radio configuration is not available.

23. (Currently Amended) A method according to Claim 14 15, wherein the common radio configuration comprises a code division multiple access (CDMA) radio configuration.

24. (Canceled)

25. (Currently Amended) ~~A system according to Claim 24~~ A wireless communications system, comprising:

a first node operative to communicate with a wireless terminal according to any of a first set of radio configurations; and

a radio configuration control circuit operative to identify a common radio configuration of the first set of radio configurations that is also a member of a second set of radio configurations supported by a second node and to responsively cause the first and second nodes

to simultaneously communicate with the wireless terminal according to the identified common radio configuration using a common channel coding including a common spreading code,

wherein a first one of the first and second sets of radio configurations is constrained to radio configurations that are compliant with a wireless communications standard, and wherein a second one of the first and second sets of radio configurations comprises radio configurations that are compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard.

26. (Currently Amended) A system according to Claim 24 25, wherein a first one of the first and second sets of radio configurations is constrained to IS-95 compliant radio configurations, and wherein a second one of the first and second sets of radio configurations includes IS-2000 compliant radio configurations that are non-compliant with IS-95.

27. (Currently Amended) A system according to Claim 24 25, wherein the radio configuration control circuit is operative to command the wireless terminal to communicate with the first and second nodes according to the identified common radio configuration responsive to identification of the common radio configuration.

28. (Currently Amended) A system according to Claim 24 25, wherein the radio configuration control circuit is operative to receive a request from the wireless terminal to communicate with the first base node according to the identified common radio configuration and to responsively cause the first node to change its communications with the wireless terminal to conform to the

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identified common radio configuration.

29. (Currently Amended) A system according to Claim 24 25, wherein the set of radio configurations comprises a set of code division multiple access (CDMA) radio configurations.

30. (Currently Amended) A system according to Claim 24 25, wherein the first node comprises a base station.

31. (Currently Amended) A system according to Claim 24 25, wherein the radio configuration control circuit is positioned at a mobile switching center.

32. (Currently Amended) A wireless terminal, comprising:

a transceiver circuit operative to communicate according to a set of radio configurations;

and

a radio configuration control circuit coupled to the transceiver circuit and operative to cause the transceiver circuit to communicate with a first node using a first radio configuration of the set of radio configurations, to identify a second radio configuration of the set of radio configurations supported by a second node, and to responsively cause the transceiver circuit to simultaneously communicate with respective ones of the first and second nodes according to the second radio configuration using a common channel coding including a common spreading code, wherein the first node supports a first set of radio configurations constrained to radio configurations that are compliant with a wireless communications standard, and wherein the second node supports a second set of radio configurations that comprises radio configurations

compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard.

33. (Original) A terminal according to Claim 32, wherein the radio configuration control circuit is operative to cause the transceiver circuit to transmit a request to simultaneously communicate with the first and second nodes.

34. (Original) A terminal according to Claim 32, wherein the radio configuration control circuit is operative to cause the transceiver circuit to simultaneously communicate with the first and second nodes responsive to a command received by the transceiver circuit.

35. (Original) A terminal according to Claim 32, wherein the set of radio configurations comprises a set of code division multiple access (CDMA) radio configurations.

36. (Canceled)

37. (Cunently Amended) ~~A system according to Claim 36~~ A system, comprising:

means for communicating between a wireless tetTninal and a first node according to a first radio configuration of a first set of radio configurations supported by the first node;

means for identifying a second radio configuration available for a second node that supports a

second set of radio configurations that is different from the first set of radio configurations; and

means, responsive to the means for identifying a second radio configuration available for a

second node that supports a second set of radio configurations that is different from the first set

of radio configurations, for simultaneously communicating between the wireless terminal and respective ones of the first and second nodes according to the identified second radio configuration using a common channel coding including a common spreading code, wherein a first one of the first and second sets of radio configurations is constrained to radio configurations that are compliant with a wireless communications standard, and wherein a second one of the first and second sets of radio configurations comprises radio configurations compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard.

38. (Original) A system according to Claim 37, wherein a first one of the first and second sets of radio configurations is constrained to IS-95 compliant radio configurations, and wherein a second one of the first and second sets of radio configurations includes IS-2000 compliant radio configurations that are non-compliant with IS-95.

39. (Original) A system according to Claim 37, wherein the first and second radio configurations comprise code division multiple access (CDMA) radio configurations.

40. (Canceled)

41. (Currently Amended) ~~A system according to Claim 40~~ A system, comprising:

means for determining whether a common radio configuration having a common channel coding including a common spreading code is available for first and second base stations, the first base station supporting a first set of radio configurations and the second base station

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supporting a second set of radio configurations that is different than the first set of radio configurations; and

means, responsive to the means for determining whether a common radio configuration having a common channel coding including a common spreading code is available for first and second base stations, for handing off the wireless terminal from the first base station to the second base station based on a determination of whether a common radio configuration is available for the first and second base stations, wherein a first one of the first and second sets of radio configurations is constrained to radio configurations that are compliant with a wireless communications standard, and wherein a second one of the first and second sets of radio configurations comprises radio configurations that are compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard.

42. (Currently Amended) A system according to Claim ~~40~~ 41, wherein a first one of the first and second sets of radio configurations is constrained to IS-95 compliant radio configurations, and wherein a second one of the first and second sets of radio configurations includes IS-2000 compliant radio configurations that are non-compliant with IS-95.

43. (Currently Amended) A system according to Claim ~~40~~ 41, wherein the means for handing off the wireless terminal from the first base station to the second base station based on a determination of whether a common radio configuration is available for the first and second base stations comprises means for performing a soft handoff of the wireless terminal using the

common radio configuration.

44. (Currently Amended) ~~A system according to Claim 40~~ A system, comprising:

means for determining, whether a common radio configuration having a common channel coding including a common spreading code is available for first and second base stations, the first base station supporting a first set of radio configurations and the second base station supporting a second set of radio configurations that is different than the first set of radio configurations; and

means, responsive to the means for determining whether a common radio configuration having a common channel coding including a common spreading code is available for first and second base stations, for handing off the wireless terminal from the first base station to the second base station based on a determination of whether a common radio configuration is available for the first and second base stations, wherein the means for handing off the wireless terminal from the first base station to the second base station based on a determination of whether a common radio configuration is available for the first and second base stations comprises means for performing a hard handoff from the first base station to the second base station if a common radio configuration is not available.

2. The following is an examiner's statement of reasons for allowance:

With regard to claims 2,15,25,32,37,41, the prior art of record fails to anticipate or make obvious "... a first one of the first and second sets of radio configurations is constrained to radio configurations that are compliant with a wireless communications standard, and wherein a second one of the first and second sets of radio configurations

comprises radio configurations compliant with the wireless communications standard and radio configurations that are non-compliant with the wireless communications standard."

With regard to claim 8, the prior art of record fails to anticipate or make obvious "... the second set of radio configurations includes only a subset of the first set of radio configurations."

With regard to claim 9, the prior art of record fails to anticipate or make obvious "... the first set of radio configurations includes only a subset of the second set of radio configurations."

With regard to claim 18, "... wherein handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations comprises performing a soft handoff of the wireless terminal using the common radio configuration, and wherein performing a soft handoff of the wireless terminal using the common radio configuration comprises changing the radio configuration used for communications between the first base station and the wireless terminal to the common radio configuration and then communicating between the second base station and the wireless terminal according to the common radio configuration."



With regard to claim 22, the prior art of record fails to anticipate or make obvious "... wherein handing off the wireless terminal from the first base station to the second base station based on the determination of whether a common radio configuration is available for the first and second base stations comprises performing a hard handoff from the first base station to the second base station if a common radio configuration is not available."

With regard to claim 44, the prior art of record fails to anticipate or make obvious "... wherein the means for handing off the wireless terminal from the first base station to the second base station based on a determination of whether a common radio configuration is available for the first and second base stations comprises means for performing a hard handoff from the first base station to the second base station if a common radio configuration is not available."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Bw*

BW

August 24, 2007

EDAN D. ORGAD  
SUPERVISORY PATENT EXAMINER

*Edan Orgad 8/29/07*